ABSTRACT:

A conventional MPEG video encoder searches forward motion vectors with respect to a previous image and backward motion vectors with respect to a subsequent image in order to provide a motion-compensated prediction image for encoding B-pictures. This requires 2N accesses to the memory in which said images are stored. Searching the motion

5   vectors for P-pictures requires N memory accesses. The invention uses the spare capacity by running a two-pass motion vector search in the P-coding mode. In the second pass, the precision of the motion vectors found in the first pass is further refined. This provides more accurate motion vectors for P-pictures.

10   Fig. 1.